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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Tetsuji Kito

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03/25/2011

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
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ALEXANDRIA, VA 22314

EXAMINER

CHANNAVAJJALA, LAKSHMI SARADA

ART UNIT

PAPER NUMBER

1611

NOTIFICATION DATE

DELIVERY MODE

03/25/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/534,524	Applicant(s) KITO ET AL.	
	Examiner LAKSHMI CHANNAVAJJALA	Art Unit 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10 and 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt of amendment and response dated 1-4-10 and IDS dated 10-13-10 is acknowledged.

New claims 20-23 have been added. Claims 1, 3-10 and 12-23 are pending. Claims 2 and 11 have been canceled.

Applicants submit that the present application and the Nambu reference were, at the time the invention was made, owned by, or subject to an obligation of assignment to Kao Corporation.

Accordingly, the following rejections of record have been withdrawn:

Claims 1, 3-10 and 12-19 are rejected as obvious over the combination of Masashi (AU-B-25757/95) and Nambu (US 7,732,050).

However, the following rejections of record have been maintained:

Claims 1, 3-10 and 12-23 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 7,732,050 ('050 patent) in view of Masashi et al. (AU-B-25757/95) and US 6,905,694 to Modi.

'050 patent claims are directed to a silicone-modified water-absorbing polymer comprising a cross-linked copolymer of hydrophilic vinyl monomer particle coated with a silicone compound, and selected from starch, carrageenan, gelatin agar, gum etc. '050 patent also claims a method of producing the said particle and a cosmetic composition

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comprising the water –absorbing polymer particle. The claims of '505 patent do not recite the claimed oil-in-water emulsion of the instant invention.

Masashi discloses water absorbent resin particles comprising water absorbent resin particles (A) which are a cross linked polymer of ethylenically unsaturated monomers comprising acrylic acid and/or acrylic acid salt as an essential element, treated with an organic polysiloxane (B), wherein (A) and (B) are mixed and/or reacted, the particles have a particle size of 10-1000um and the weight ratio of (A)/(B) is 100/(0.001-5) (abstract). Masashi further discloses since the surface of (A) particles is improved with (B) liquid organic polysiloxane, the water absorbent resin particles have an improved hygroscopic blocking rate in a high humidity and obtain a wettability to prevent the generation of dust. Additionally, since the conventional disadvantage of disturbing uniform penetration of water caused by bonding of water-absorbent particles each other is improved by the modification effect of (B) in this invention, the absorption rate is improved. Examples of such water-absorbent resins (A) include cross linked partially neutralized polyacrylic acid, self-cross linked partially neutralized polyacrylic acid, cross linked graft-copolymers of starch-acrylic acid salt, hydrolyzed cross linked graft- polymers of starch-acrylonitrile, cross linked copolymers of vinyl alcohol-acrylic acid salt, hydrolyzed cross linked copolymers of acrylic acid-acrylamide, hydrolyzed cross linked copolymers of acrylic acid salt-acrylonitrile, cross linked copolymers of acrylic acid salt and 2-acrylamide-2-methyl propane sulfonate, neutralized cross linked copolymers of isobutylene-maleic anhydride, and mixture of two or more of these examples (page 7, 2nd paragraph). In the case when the above cross linked polymers

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shown are examples of water absorbent resins (A) are formed with carboxylic salts such as acrylic salt as a raw material, or when they form salts as a neutralized product or a partially neutralized product, examples of such salts include sodium salt, potassium salt, ammonium salt, and amine salt (page 7, last paragraph through page 8, top paragraph). Preferable organic polysiloxane compounds include amino-modified silicone oil such as the amino-modified silicone oil (see page 11 chemical structures). Since Masashi teaches the same polymer particles claimed in the instant application, absent a showing to the contrary, it is the position of the examiner that the particles would have the same functional limitations of claims 3-4 and 12-13.

While Masahi fails to exemplify a cosmetic emulsion and hence an antiperspirant composition and method claimed, Masahi teaches the particles may be admixed with fillers or additives including organic powders, natural polysaccharides, inorganic powders, including alumina, antioxidants, antiseptic agents, disinfectants, surface active agents, coloring agents, perfumes and deodorants (page 21, top paragraph).

Modi teaches personal care compositions comprising hydrophobically modified water soluble polysaccharide polymer and a personal care agent, wherein the personal care agents can be in the form of oil-in-water or water-in-oil emulsions (abstract and claim 1). Modi teaches that the composition can be used for a wide range of personal care products such as shampoo, antiperspirant products, sunscreen products etc (col. 4, L 31-68). Modi describes preparation of emulsions in col. 8-9. Modi teaches that the hydrophobically modified polymers impart stability to the composition.

It would have been obvious for a skilled artisan at the time of the instant invention was made to use the water absorbing polymers particles of the '050 patented claims for preparing cosmetic compositions because Masahi teaches surface treated water absorbing polymers can be mixed with organic powders and other cosmetic additives in cosmetic emulsion formulations and have an improved hygroscopic blocking rate in a high humidity and obtain a wettability to prevent the generation of dust. Masahi suggests that the water absorbing polymers that are surface-hydrophobated further improve the water absorption rate that is not seen in the conventional water-absorbent particles. Further, it would have been obvious for one skilled in the art to prepare the cosmetic compositions comprising water absorbing polymers of '050 claims in the form of oil-in-water or water-in-oil emulsions because Modi teaches that one can prepare cosmetic compositions comprising hydrophobically modified water soluble polysaccharides in the form of oil-in-water or water-in-oil emulsions thus suggesting the suitability of the hydrophobically modified polymers for both oil-in-water and water-in-oil compositions. With respect to the particle sizes claimed, Masahi teaches 10-1000 microns, which overlaps with the claimed size in the pending claims except claims 22-23. Further, optimizing the average particle sizes so as to achieve the desired water absorption with the polymers would have been within the scope of a skilled artisan because Masahi recognizes the particle sizes for water absorption. Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are

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disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In this regard, applicants have not provided any unexpected advantage with the claimed sizes i.e., 0.1-5 microns.

Claims 1, 3-10 and 12-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masashi et al. (AU-B-25757/95, cited in the previous actions) in view of US 6,905,694 to Modi (see above).

Masashi discloses water absorbent resin particles comprising water absorbent resin particles (A) which are a cross linked polymer of ethylenically unsaturated monomers comprising acrylic acid and/or acrylic acid salt as an essential element, treated with an organic polysiloxane (B), wherein (A) and (B) are mixed and/or reacted, the particles have a particle size of 10-1000um and the weight ratio of (A)/(B) is 100/(0.001-5) (abstract). Masashi further discloses since the surface of (A) particles is improved with (B) liquid organic polysiloxane, the water absorbent resin particles have an improved hygroscopic blocking rate in a high humidity and obtain a wettability to prevent the generation of dust. Additionally, since the conventional disadvantage of disturbing uniform penetration of water caused by bonding of water-absorbent particles each other is improved by the modification effect of (B) in this invention, the absorption rate is improved. Examples of such water-absorbent resins (A) include cross linked partially neutralized polyacrylic acid. self-cross linked partially neutralized polyacrylic

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acid, cross linked graft-copolymers of starch-acrylic acid salt, hydrolyzed cross linked graft- polymers of starch-acrylonitrile, cross linked copolymers of vinyl alcohol-acrylic acid salt, hydrolyzed cross linked copolymers of acrylic acid-acrylamide, hydrolyzed cross linked copolymers of acrylic acid salt-acrylonitrile, cross linked copolymers of acrylic acid salt and 2-acrylamide-2-methyl propane sulfonate, neutralized cross linked copolymers of isobutylene-maleic anhydride, and mixture of two or more of these examples (page 7, 2nd paragraph). In the case when the above cross linked polymers shown are examples of water absorbent resins (A) are formed with carboxylic salts such as acrylic salt as a raw material, or when they form salts as a neutralized product or a partially neutralized product, examples of such salts include sodium salt, potassium salt, ammonium salt, and amine salt (page 7, last paragraph through page 8, top paragraph). Preferable organic polysiloxane compounds include amino-modified silicone oil such as the amino-modified silicone oil (see page 11 chemical structures). Since Masashi teaches the same polymer particles claimed in the instant application, absent a showing to the contrary, it is the position of the examiner that the particles would have the same functional limitations of claims 3-4 and 12-13.

With respect to the particle sizes claimed, Masahi teaches 10-1000 microns, which overlaps with the claimed size in the pending claims except claims 22-23. Further, optimizing the average particle sizes so as to achieve the desired water absorption with the polymers would have been within the scope of a skilled artisan because Masahi recognizes the particle sizes for water absorption. Generally, differences in concentration or temperature will not support the patentability of subject

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matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In this regard, applicants have not provided any unexpected advantage with the claimed sizes i.e., 0.1-5 microns.

While Masahi fails to exemplify a cosmetic emulsion and hence an antiperspirant composition and method claimed, Masahi teaches the particles may be admixed with fillers or additives including organic powders, natural polysaccharides, inorganic powders, including alumina, antioxidants, antiseptic agents, disinfectants, surface active agents, coloring agents, perfumes and deodorants (page 21, top paragraph).

Modi teaches personal care compositions comprising hydrophobically modified water soluble polysaccharide polymer and a personal care agent, wherein the personal care agents can be in the form of oil-in-water or water-in-oil emulsions (abstract and claim 1). Modi teaches that the composition can be used for a wide range of personal care products such as shampoo, antiperspirant products, sunscreen products etc (col. 4, L 31-68). Modi describes preparation of emulsions in col. 8-9. Modi teaches that the hydrophobically modified polymers impart stability to the composition.

It would have been obvious for a skilled artisan at the time of the instant invention was made to use the water absorbing polymers particles of the Masahi for preparing cosmetic compositions because Masahi teaches surface treated water absorbing polymers can be mixed with organic powders and other cosmetic additives in cosmetic

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emulsion formulations and have an improved hygroscopic blocking rate in a high humidity and obtain a wettability to prevent the generation of dust. Masahi suggests that the water absorbing polymers that are surface-hydrophobated further improve the water absorption rate that is not seen in the conventional water-absorbent particles. Further, it would have been obvious for one skilled in the art to prepare the cosmetic compositions comprising water absorbing polymers in the form of oil-in-water or water-in-oil emulsions because Modi teaches that one can prepare cosmetic compositions comprising hydrophobically modified water soluble polysaccharides in the form of oil-in-water or water-in-oil emulsions thus suggesting the suitability of the hydrophobically modified polymers for both oil-in-water and water-in-oil compositions. Further, a skilled artisan would have been able to optimize the amount of the water absorbing resin particles of Masahi in the cosmetic composition based on the suggestion of Modi because Modi teaches employing 0.1% to 99% in general and in particular the examples teach amounts such as 1%, 3% etc., that fall within the claimed amounts of instant claims 5, 14, 20 and 21.

Response to Arguments

Applicant's arguments filed 1/4/11 have been fully considered but they are not persuasive.

Applicants argue that the Office's basis for this rejection is the same as the obviousness rejections under 35 U.S.C. § 103 (a) and that the traversals of §103(a) obviousness rejections equally apply to non-statutory obviousness-type double patenting rejections. It is argued that it is not accurate to say that the claimed polymer

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particles having an average particle diameter of 0.1 to 10 microns includes/reads on "95 weight % or more of particles with the size of 10 - 1,000 microns". However, applicant's arguments are not persuasive because the 10 micron size of the instant claims overlaps with the particle size range taught by Masahi. Further, optimizing the average particle sizes so as to achieve the desired water absorption with the polymers would have been within the scope of a skilled artisan because Masahi recognizes the particle sizes for water absorption. Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In this regard, applicants have not provided any unexpected advantage with the claimed sizes i.e., 0.1-5 microns. The argument that Masahi prefers 50-850 microns is not persuasive because a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.). Applicants' arguments regarding the water content have been considered. However, firstly, instant claims, except 5 and 14, do not require the claimed amount of water. Further, Masahi does not state that the water content should not exceed 20% or that a water content of 30-95% adversely affects the resin particles of Masahi.

Applicants argue that Modi is relied upon merely for its alleged disclosure of personal care compositions comprising hydrophobically modified water soluble polysaccharide polymer(s) wherein such compositions are in the form of an oil-in-water emulsion. Applicants submit that Modi does not fulfill the above-discussed deficiencies of Masashi. Accordingly, the combination of Modi with Masashi fails to render obvious the Claimed invention for the same reasons that Masashi alone fails to render obvious the claimed invention. Thus, Applicants respectfully request withdrawal of the obviousness rejection of record over the combination of Masashi and Modi. Applicants' arguments are not persuasive because as admitted, Modi has been cited for the disclosure of personal care compositions comprising hydrophobically modified water soluble polysaccharide polymer(s) wherein such compositions are in the form of an oil-in-water emulsion. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Modi teaches that the hydrophobically modified polymers impart stability to the composition and therefore, a skilled artisan. Hence, it would have been obvious for one skilled in the art to prepare the cosmetic compositions comprising water absorbing polymers of '050 claims in the form of oil-in-water or water-in-oil emulsions because Modi teaches that one can prepare cosmetic compositions comprising hydrophobically modified water soluble polysaccharides in the form of oil-in-water or water-in-oil emulsions thus suggesting the suitability of the hydrophobically

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modified polymers for both oil-in-water and water-in-oil compositions. Further, for the reasons stated above, the rejection of claims over Masahi in view of Modi has been maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAKSHMI CHANNAVAJJALA whose telephone number is (571)272-0591. The examiner can normally be reached on 9.00 AM -5.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila G. Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lakshmi S Channavajjala/
Primary Examiner, Art Unit 1611